

Amendments to the Drawings:

The attached sheets of drawings include formal drawings of Figs. 1-7.

Attachment: Replacement Sheets 1-4

REMARKS/ARGUMENTS

Applicant submits formal drawing sheets 1-4 to address the informalities indicated on the Notice of Draftsperson's Patent Drawing Review.

Claims 1, 2, 7, 9-12, 14, 15, 20-23, 25 and 26 remain in this application. Claim 13 is canceled by this Amendment.

The Examiner has rejected claims 1, 2, 7, 9-15, 20-23, 25, and 26 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,054,440 (Kadokawa) in view of U.S. Patent No. 6,604,498 (Fernandez et al.).

The Applicants have amended independent claims 1, 23, and 25 to include the subject matter of original dependent claim 13, which recites that the cam follower has a cam follower outer diameter and that the diameter of the apertures provided in the walls of the main body of the finger follower are between about ten percent and about twenty-five percent of the outer diameter of the cam follower. The Examiner argues that "Kadokawa teaches cam followers with varying sizes of wall aperture diameters compared to their respective bush, axle, or sleeve outer diameters. The inclusion of the cited specific ratios of diameters is well within the skill of one having ordinary skill in the art depending on the specific anti-friction characteristics, space available, and material strength. Moreover, there is nothing in the record which establishes that the application of such represents a novel or unexpected result."

The Applicants respectfully disagree with the Examiner's position. Contrary to the Examiner's contention, this combination of features is novel and significant, and the Applicants' specification explicitly discusses the significance. Page 1, lines 23-29 discusses the problems with prior art finger followers having large apertures in the main body, stating:

Large apertures in the main body negatively effect the strength and stiffness of the finger follower and can result in damage or even failure of the finger follower under forces applied by the cam. Increased reinforcement is typically required to decrease the chance of finger follower failure. Such reinforcement creates a bulky, heavy, inefficient, and expensive finger follower that is difficult to fit into an already cramped engine. Such reinforcement also reduces finger follower design flexibility.

The invention as set forth in amended claims 1, 23, and 25 recites the claimed 10% to 25% ratio of aperture diameter to cam follower outer diameter, thereby achieving a resulting small aperture diameter in relation to the cam follower and therefore the finger follower as a whole. This feature alone, or at least in combination with the claimed shaft assembly/cam follower/rolling element arrangement, presents a novel and non-obvious finger follower and method for assembling a finger follower that is not taught or suggested by the combination of Kadokawa and Fernandez et al.

As best as can be understood from the drawings, none of the embodiments shown in Kadokawa appears to include the claimed 10% to 25% ratio of aperture diameter to cam follower outer diameter. Rather, the ratios shown in the various embodiments of Kadokawa appear to range from between about 29% to about 34%, and do not achieve the advantageous range and the resulting small aperture diameter in relation to the cam follower and therefore the finger follower as a whole. Furthermore, and as the Examiner admits, none of the embodiments of Kadokawa includes the claimed shaft assembly/cam follower/rolling element arrangement. The Examiner argues that such a shaft assembly/cam follower/rolling element arrangement would be obvious based on the teachings of Fernandez et al. Even if this were true (which the Applicants maintain is not the case), Fernandez et al. also fails to teach or suggest the claimed 10% to 25% ratio of aperture diameter to cam follower outer diameter. Rather, as best estimated from Fig. 4 of Fernandez et al., the ratio appears to be about 27.5%, and therefore also fails to achieve the advantageous small aperture diameter in relation to the cam follower and the finger follower as a whole.

For these reasons, amended independent claims 1, 23, and 25, and their respective dependent claims are allowable.

Independent claim 25 has also been amended to correct a typographical error, and now properly recites “secondary portions” instead of the “second shaft.”

It is therefore respectfully submitted that pending claims 1, 2, 7, 9-12, 14, 15, 20-23, 25 and 26 are in condition for allowance. Early reconsideration and allowance of the pending claims are respectfully requested.

If the Examiner believes an interview, either telephonic or in person, will advance the prosecution of this matter, it is respectfully requested that the Examiner get in contact with the undersigned.

Respectfully submitted,



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Attachments

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